

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed March 12, 2004 (the "Office Action"). The Office Action rejects Claims 7-13, 20- 22 and 34-37 and allows Claims 38 and 39. Applicants appreciate the Examiner's allowance of Claims 38 and 39. Applicants respectfully request reconsideration and favorable action with respect to Claims 7-13, 20- 22 and 34-37 in view of the following remarks.

Finality of the Office Action

Applicants respectfully submit that the Office Action was prematurely issued as a "Final" Office Action. The Office Action included new grounds of rejection for Claims 7-9, 11, 22, 23, 34-35 and 37, and none of those claims were amended in Applicants' previous response. For example, the Office Action uses U.S. Patent No. 5,546,272 issued to Moss et al. ("Moss") to reject such claims, and *Moss* was not used to reject claims in the previous Office Action mailed November 10, 2003. *See* Office Action, page 4, paragraph 2. Applicants pointed this out to Examiner Masinick in a telephone conference on May 7, 2004. Examiner Masinick instructed Applicants to address the issue in Applicants next response. Applicants thus submit that the Office Action should not have been issued as a "Final" Office Action and respectfully request that the finality of the Office Action be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 7-9, 11, 20, 22, 23 and 34-37 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,037,732 issued to Alfano et al. ("Alfano") in view of U.S. Patent No. 4,817,865 issued to Wray ("Wray") and further in view of *Moss*. Applicants respectfully traverse these rejections for the reasons stated below.

Claim 7 recites "comparing the first and second operating temperatures with first and second predetermined maximum operating temperatures, respectively" and transmitting a request to increase the speed of the cooling fans "if the first operating temperature is greater than or equal to the first predetermined operating temperature or the second operating temperature is greater than or equal to the second predetermined maximum operating temperature." The Office Action states that "Alfano shows the use of multiple server cards and fan controllers which each are individually set to their own maximum temperature." *See*

Office Action, page 2. However, this is incorrect. *Alfano* discloses that alternative embodiments may include multiple fans controlled by a fan controller and that a system may include multiple fan controllers and multiple temperature sensor circuits. *See Alfano*, col. 8, lines 60-65. However, *Alfano* does not disclose, teach or suggest multiple predetermined maximum operating temperatures against which operating temperatures of multiple server processing cards are respectively compared. *Alfano* only discloses a system “shutdown temperature value” against which a measured temperature is compared. As indicated above, *Alfano* discloses that alternative embodiments may include multiple fans, fan controllers and temperature sensor circuits but does not disclose a system with multiple predetermined maximum operating temperatures. As such, *Alfano* also does not disclose, teach or suggest transmitting a request to increase the speed of the cooling fans if the first operating temperature is greater than or equal to the first predetermined maximum operating temperature or the second operating temperature is greater than or equal to the second predetermined maximum operating temperature. Moreover, neither *Wray* nor *Moss* disclose, teach or suggest these elements. *Wray* merely discloses activating a single fan if temperatures in any one or more compartments exceeds a single predetermined threshold. *See Wray*, col. 5, lines 26-34.

As indicated above, Claim 7 recites transmitting a request to increase the speed of multiple cooling fans if a first operating temperature is greater than or equal to a first predetermined operating temperature or a second operating temperature is greater than or equal to a second predetermined maximum operating temperature. The Office Action states that *Wray* “is not relied upon by the examiner to show multiple fans as this feature has already clearly been shown in *Alfano*.” *See* Office Action, page 2, last paragraph. However, the Office Action previously states that “*Wray* clearly shows in column 5, lines 26-40, the ability to turn on all *fans* should any of the temperature readings be above normal.” Office Action, page 2 (*emphasis added*). In addition, the Office Action states that “*Wray* shows a ventilation system for a computer or electric system housing where the speed of the *fans* in all ‘compartments’ is increased if the temperature in any of the compartments is over a predetermined threshold (Col 5, lines 26-39).” Office Action, page 5, paragraph 6 (*emphasis added*). Applicant requests that the Examiner clarify these statements so that the issue is clear for appeal.

Applicants also point out that *Alfano* does not disclose, teach or suggest transmitting a request to increase the speed of multiple cooling fans if one or another operating temperatures is greater or equal than respective predetermine maximum operating temperature. The mere mention of using multiple fans in alternative embodiments does not suffice as disclosure of this element. The Office Action does not cite any support in any reference for even transmitting a single request to increase the speed of multiple cooling fans, let alone doing so if a first operating temperature is greater than or equal to a first predetermined operating temperature or a second operating temperature is greater than or equal to a second predetermined maximum operating temperature.

Claim 7 also recites transmitting first and second requests to read first and second operating temperatures, respectively. In response to Applicants arguments that no cited art used in the rejection discloses these elements, the Office Action points to "figure 2, blocks 210, 220 and 270" of *Alfano* which, the Office Action states, "all have temperature comparitor circuits." Office Action, page 3. The Office Action states that "[i]t would be an inherent part of this circuit or assembly language programming to make a request to the temperature sensor to provide the current temperature." *Id.* Applicants respectfully disagree. In relying on the theory of inherency, the allegedly inherent characteristic must necessarily flow from the teachings of the applied prior art. *See Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990); M.P.E.P. § 2112. The mere fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *See In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993). The mere disclosure in *Alfano* of decision steps comparing a sensed temperature to a minimum or shutdown temperature does not necessarily mean that requests are transmitted to read operating temperatures which is required for a rejection based on inherent disclosure, as the operating temperatures could be passively read for example.

Therefore, for at least the reasons indicated above, Applicants respectfully submit that Claim 7 is patentable over the cited art used in the rejection and request that the rejection of Claim 7 be withdrawn.

Claims 8-9 and 11 depend, either directly or indirectly, from Claim 7 and therefore include all elements of Claim 7. Applicants thus respectfully request that the rejections of Claims 8-9 and 11 be withdrawn because, as discussed above, the cited art used in the rejections does not disclose, teach or suggest every element of Claim 7.

Moreover, in response to Applicants previous arguments that each element of Claims 8 and 9 was not disclosed by the cited art used in the rejections, the Office Action states that “[a]ll claim elements of claims 8 and 9 are user design choices and would not affect the setup of the system as claimed in independant [sic] claim 7.” Applicants respectfully disagree. Applicants note that Claim 8 includes transmitting a fourth request to increase the speed of server chassis cooling fans if a third operating temperature associated with a third temperature sensor coupled with a third server processing card is greater than or equal to a third predetermined maximum operating temperature. This increases the functionality of the system because the cooling effect of the fans may be more geographically distributed through the chassis as a result of having the third sensor of the third processing card to measure temperature compared against a third maximum operating temperature. No cited art used in the rejections include the above-recited element or achieve the functions of Claim 8. Applicants note that the Federal Circuit has precluded a finding of obvious design choice where the claimed structure and the function it performs are different from the prior art. *See In re Chu*, 66 F.3d 292, 299 (Fed.Cir. 1995) (citing *In re Gal*, 980 F.2d 717 (Fed.Cir. 1992)). Applicants thus again respectfully request that the rejections of Claims 8 and 9 be withdrawn because, as discussed above, the cited art used in the rejections does not disclose, teach or suggest every element of Claims 8 and 9.

Claims 10 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Alfano* in view of *Wray* and *Moss* and further in view of U.S. Patent No. 6,470,289 issued to Peters (“*Peters*”). Applicants respectfully traverse these rejections for the reasons stated below.

Claims 10 and 12 depend, either directly or indirectly, from Claim 7 and therefore include all elements of Claim 7. Applicants thus respectfully request that the rejections of

Claims 10 and 12 be withdrawn because, as discussed above, the cited art used in the rejections does not disclose, teach or suggest every element of Claim 7.

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Alfano* in view of *Wray* and further in view of U.S. Patent No. 6,065,081 issued to Stancil et al. (“*Stancil*”). Applicants respectfully traverse these rejections for the reasons stated below.

Claim 13 depends from Claim 7 and therefore includes all elements of Claim 7. Applicants thus respectfully request that the rejection of Claim 13 be withdrawn because, as discussed above, the cited art used in the rejections does not disclose, teach or suggest every element of Claim 7.

Claim 20 recites “wherein the plurality of server processing cards comprises a first number of server processing cards and the plurality of cooling fans comprises a second number of cooling fans and wherein the first number is greater than the second number.” Applicants note that in a prior Office Action mailed November 10, 2003 (the “Previous Office Action”), the Examiner rejected Applicants’ Claim 21 which included the above-quoted elements of current pending Claim 20. In the Previous Office Action, the Examiner stated that “Alfano as shown above does not show where the plurality of server processing cards outnumbers the plurality of cooling fans” and relied on U.S. Patent No. 6,101,459 issued to Tavallaei et al. (“*Tavallaei*”) to reject this element. After Applicants demonstrated in Applicants’ response to the Previous Office Action that *Tavallaei* did not disclose, teach or suggest this element, the Examiner, in the Office Action, changed his basis for rejection and merely states that the “Alfano patent clearly shows the ability to have multiple server cards and fans, and the number of fans and their relationship to the number of cards does not affect the overall functionality of the system.” Office Action, page 6, paragraph 12. Applicants request that the Examiner clarify this change so that the issue is clear for appeal. In addition, Applicants note that having a greater number of sever processing cards than cooling fans increases system functionality because having the ability to use fewer cooling fans than processing cards to effectively cool the processing cards based on the operating temperature of each processing card may reduce system expenses, particularly the costs of the cooling

fans. The Examiner is still required to show how each and every claim limitation is taught by the cited art. *See, e.g., In re Royka*, 409 F.2d 981 (CCPA 1974); M.P.E.P. § 2143.

As indicated above, no cited art used in the rejection disclose, teach or suggest each and every element of Claim 20. Applicants thus respectfully submit that Claim 20 is patentable over the cited art used in the rejection and request that the rejection of Claim 20 be withdrawn.

Independent Claims 22, 34 and 36 are allowable for reasons analogous to those provided in conjunction with Claim 7. Claim 36 is allowable because the cited references do not teach or suggest increasing the operating speed of cooling fans associated with the server chassis if any one of plurality of server processing cards' operating temperature exceeds one of a plurality of predetermined maximum temperatures as recited by Claim 36. Applicants thus request that the rejections of Claims 22, 34 and 36 be withdrawn.

Claim 23 depends from Claim 22 and Claim 35 depends from Claim 34. Therefore, Claims 23 and 35 include all elements of Claims 22 and 34, respectively. Applicants thus respectfully request that the rejections of Claims 23 and 35 be withdrawn because, as discussed above, the cited art used in the rejections does not disclose, teach or suggest every element of Claims 22 and 34.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicants stand ready to conduct such a conference at the convenience of the Examiner.

Applicants believe no fees are due, however, if it is determined that any fees are due, the Commissioner is hereby authorized to charge said fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

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Date: May 12, 2004

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Attorney Docket No: 067856.0212